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EXAMINER

GEISEL, KARA E

ART UNIT PAPER NUMBER

2877

DATE MAILED: 08/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/006,886

Applicant(s)

DE RIGAL ET AL.

Examiner

Kara E Geisel

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-219 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 138-164 and 200-219 is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☒ Claim(s) 5-7, 19-22, 25, 26, 36-41, 43-46, 55-57, 69-72, 75, 76, 85-90, 92-97, 109-113, 128, 136-137, 178, 186-187, 193 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 .

- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

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PTO-326 (Rev. 04-01)

Office Action Summary

Part of Paper No. 8

Continuation of Disposition of Claims: Claims rejected are 1-4,8-18,23,24,27-35,42,47-54,58-68,73,74,77-84,91,98-108,114-127,129-135,165-177,179-185,188-192 and 194-199.

DETAILED ACTION

Election/Restrictions Remarks

Applicant's election with traverse of Group 1, claims 1-105, in Paper No. 7, filed on May 30th, 2003 is acknowledged. The traversal is on the ground(s) found in paragraph 2 of page 2. Upon reconsideration of the restriction requirement, and upon consideration of applicant's remarks in paper number 7, the election/restriction requirement has been withdrawn.

Claims 1-219 will be fully considered by the examiner.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in this application on December 10th, 2001.

Information Disclosure Statement

The information disclosure statement filed on December 10, 2002 has been fully considered by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-4, 8, 13-14, 23-24, 42, 47, 51-54, 58, 63-64, 73-74, 91, 98, 102-103, 106-108, 114, 117-118, 120-122, 126-127, 129, 132-133, 165, 168-170, 172-173, 176-177, 179, and 182-183 are rejected under 35 U.S.C. 102(b) as being anticipated by MacFarlane et al. (USPN 5,311,293), as cited by applicant.

In regards to claims 1, 52, and 103 MacFarlane discloses a matching chart and a system comprising a plurality of comparison samples (column 6, lines 18-20) having a reflectance spectrum and being configured to substantially simulate a color of a keratinous element having a reflectance spectrum (columns 5-6, lines 63-68 and 1-8, respectively), wherein each comparison sample comprises at least one of a pigment and a dye such that the reflectance spectrum of the comparison sample is substantially similar to the reflectance spectrum of the keratinous element such that each comparison sample the keratinous element appear to an observer to have substantially the same color under at least two differing illuminants (column 6, lines 3-21).

In regards to claim 106, MacFarlane discloses a method of making a comparison sample configured to substantially simulate a color of a keratinous element (column 6, line 18-20) comprising depositing a coating on a support (column 5, lines 50-55) having a reflectance spectrum (columns 5-6, lines 63-68 and 1-8, respectively), wherein the reflectance spectrum of the comparison sample is substantially similar to the reflectance spectrum of a keratinous element such that the comparison sample and the keratinous element appear to an observer to have substantially the same color under at least two differing illuminants (column 6, lines 3-21).

In regards to claims 3, 53, and 108 the at least two differing illuminants are chosen from a D65 illuminant, and an A illuminant (column 6, lines 14-17).

In regards to claims 4, 54, and 107 the reflectance spectrum of each comparison sample is substantially similar to the reflectance spectrum of the keratinous element in a spectral range from about 400-800 nm (column 6, lines 11-17).

In regards to claims 8 and 58, the at least one comparison sample is configured to substantially simulate a color of skin (column 6, lines 3-8).

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In regards to claims 13 and 63, the plurality of comparison samples are used to simulate skin color (column 6, lines 1-17), wherein the comparison samples have differing levels of lightness to simulate the skin color (column 16, lines 8-25).

In regards to claims 14 and 64, the differing levels of lightness range from about 34 to 75 in the CIEL*C*h 1976 color space (column 16, lines 14-17).

In regards to claims 23 and 73, each comparison sample is configured such that the color is substantially uniform and substantially constant over at least a portion of a surface of the comparison sample (column 6, lines 18-21).

In regards to claims 24 and 74, each comparison sample is configured such that the color is substantially uniform and substantially constant over the entire surface of the comparison sample (column 6, lines 18-21).

In regards to claims 42 and 91, each comparison sample is further configured to simulate at least one appearance characteristic other than color of the keratinous element (column 16, lines 8-25).

In regards to claims 47 and 98, the matching chart further comprises a plurality of comparison samples forming at least one set (column 6, lines 18-20).

In regards to claims 51 and 102, the keratinous element is chosen from skin (column 2, lines 55-64).

In regards to claims 114 and 165, MacFarlane discloses a method of manufacturing a product or selecting a product intended for application to a keratinous element comprising providing the system of claim 52 (as disclosed above), selecting at least one of the plurality of comparison samples (columns 6 and 8, lines 35-47 and 40-59), and making or selecting a product intended for application to a keratinous element according to the color of the at least one selected comparison sample (column 16, lines 41-65).

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In regards to claim 117, the selecting of the at least one comparison sample comprises determining which of the plurality of comparison samples substantially corresponds to a color of the keratinous element to which the product is intended to be applied (column 8, lines 40-59).

In regards to claims 118 and 170, the keratinous element is skin.

In regards to claims 120 and 168, the product is chosen from a cosmetic product (column 14, lines 21-44).

In regards to claims 121 and 169, the product is chosen from a foundation, makeup product, a lip makeup product, a hair care product, a blush, and an eyeshadow (column 1, lines 17-27).

In regards to claim 122, providing the system comprises providing a plurality of comparison samples as a set (column 6, lines 18-25).

In regards to claims 126 and 176, the at least two differing illuminants are chosen from a D65 illuminant, and an A illuminant (column 6, lines 14-17).

In regards to claims 127 and 177, the reflectance spectrum of each comparison sample is substantially similar to the reflectance spectrum of the keratinous element in a spectral range from about 400-800 nm (column 6, lines 11-17).

In regards to claims 129 and 179, the at least one comparison sample is configured to substantially simulate a color of skin (column 6, lines 3-8).

In regards to claims 132 and 182, the plurality of comparison samples are used to simulate skin color (column 6, lines 1-17), wherein the comparison samples have differing levels of lightness (column 16, lines 8-25).

In regards to claims 133 and 183, the differing levels of lightness range from about 34 to 75 in the CIEL*C*h 1976 color space (column 16, lines 14-17).

In regards to claim 172, if the product were lipstick or blush, or the like, the product would affect the color of the keratinous element.

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In regards to claim 173, the keratinous element is compared to the comparison samples to determine which comparison sample has a color that substantially corresponds to the keratinous element (column 8, lines 40-54).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2, 105 and 175, are rejected under 35 U.S.C. 103(a) as being unpatentable over MacFarlane et al. (USPN 5,311,293) as applied to claims 1, 3-4, 8, 13-14, 23-24, 42, 47, 51-54, 58, 63-64, 73-74, 91, 98, 102-103, 106-108, 114, 117-118, 120-122, 126-127, 129, 132-133, 165, 168-170, 172-173, 176-177, and 179 above, in view of Kamen et al. (USPN 5,150,791).

In regards to claims 2, 105, and 175, a method of selecting a product, a system, and a matching chart are disclosed above. MacFarlane does not disclose that the comparison samples are configured to be displayed on a package of a product intended for application to a keratinous element. However, it is

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well known in the art to have the color of skin, which a cosmetic such as foundation, would be most suitably applied displayed on a package of that cosmetic.

For example, Kamen discloses a module for displaying a cosmetic color (fig. 4). The module is formed and then can be placed on a color chart (fig. 3). The corresponding color can also be attached to the package or case of the cosmetic (figs. 1 and 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have each of the comparison samples of MacFarlane's chart be configured to be displayed on a package of a product intended for application to a keratinous element in order to help a user identify the product a user would need in relation to the user's skin coloring.

Claims 9-12, 15-18, 27, 34-35, 48, 59-62, 65-68, 83-84, 99, 104, 115-116, 119, 123-125, 130-131, 134-135, 166-167, 171, 174, 180-181, and 184-185 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacFarlane et al. (USPN 5,311,293) as applied to claims 1, 3-4, 8, 13-14, 23-24, 42, 47, 51-54, 58, 63-64, 73-74, 91, 98, 102-103, 106-108, 114, 117-118, 120-122, 126-127, 129, 132-133, 165, 168-170, 172-173, 176-177, and 179 above.

In regards to claims 9, 59, 130, and 180, MacFarlane discloses that each comparison sample has a substantially similar reflectance spectrum as skin in order to avoid a problem known as metamerism (column 5, lines 52-62), wherein objects that have the same perceived color under one type of light, will look different under a different type of light. By avoiding metamerism in the comparison sample, one is able to calibrate a colorimeter more accurately, and therefore, receive better measurements under many different types of illumination. Metamerism may be solved using this technique, for any number of samples being tested, such as hair color, and therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have any comparison sample used to calibrate a colorimeter have a reflectance spectrum substantially similar to the object to be measured, such as hair, in order to avoid metamerism. In this case, it would be obvious to one of ordinary skill to have an orange or

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yellow comparison sample, which would have a hue angle ranging from about 40 degrees to about 70 degrees in the CIEL*C*h 1976 color space (columns 11-12, lines 62-68 and 1-3, respectively), have a reflectance spectrum substantially similar to the object to be measured, such as hair, in order to calibrate a colorimeter more accurately, and to get a better measurement of the hair color under different illuminations.

In regards to claims 10 and 60, MacFarlane discloses that each comparison sample has a substantially similar reflectance spectrum as skin in order to avoid a problem known as metamerism (column 5, lines 52-62), wherein objects that have the same perceived color under one type of light, will look different under a different type of light. By avoiding metamerism in the comparison sample, one is able to calibrate a colorimeter more accurately, and therefore, receive better measurements under many different types of illumination. Metamerism may be solved using this technique, for any number of samples being tested, such as hair color, and therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have any comparison sample used to calibrate a colorimeter have a reflectance spectrum substantially similar to the object to be measured, such as hair, in order to avoid metamerism. In this case, it would be obvious to one of ordinary skill to have an orange comparison sample, which would have a hue angle ranging from about 46 degrees to about 64 degrees in the CIEL*C*h 1976 color space (columns 11-12, lines 62-68 and 1-3, respectively), have a reflectance spectrum substantially similar to the object to be measured, such as hair, in order to calibrate a colorimeter more accurately, and to get a better measurement of the hair color under different illuminations.

In regards to claims 11-12, 61-62, 131, and 181, MacFarlane discloses that each comparison sample has a substantially similar reflectance spectrum as skin in order to avoid a problem known as metamerism (column 5, lines 52-62), wherein objects that have the same perceived color under one type of light, will look different under a different type of light. By avoiding metamerism in the comparison

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sample, one is able to calibrate a colorimeter more accurately, and therefore, receive better measurements under many different types of illumination. Metamerism may be solved using this technique, for any number of samples being tested, such as hair color, and therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have any comparison sample used to calibrate a colorimeter have a reflectance spectrum substantially similar to the object to be measured, such as hair, in order to avoid metamerism. In this case, it would be obvious to one of ordinary skill to have a plurality of comparison samples having different hues such as yellow, orange, red, beige, brown, black, and gray (columns 11-14, lines 62-68, 1-68, 1-67, 1-20, respectively), have a reflectance spectrum substantially similar to the object to be measured, such as hair, in order to calibrate a colorimeter more accurately, and to get a better measurement of the hair color under different illuminations.

In regards to claims 15-16, 65-66, 134-135, and 184-185, MacFarlane discloses that each comparison sample has a substantially similar reflectance spectrum as skin in order to avoid a problem known as metamerism (column 5, lines 52-62), wherein objects that have the same perceived color under one type of light, will look different under a different type of light. By avoiding metamerism in the comparison sample, one is able to calibrate a colorimeter more accurately, and therefore, receive better measurements under many different types of illumination. Metamerism may be solved using this technique, for any number of samples being tested, such as hair color, and therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have any comparison sample used to calibrate a colorimeter have a reflectance spectrum substantially similar to the object to be measured, such as hair, in order to avoid metamerism. In this case, it would be obvious to one of ordinary skill to have a plurality of comparison samples having different chroma levels such as beige, or brown (columns 12-13, lines 62-68, and 1-14, respectively), which would have a chroma level range from about 12 to about 30, have a reflectance spectrum substantially similar to the object to be measured, such as

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hair, in order to calibrate a colorimeter more accurately, and to get a better measurement of the hair color under different illuminations.

In regards to claims 17 and 67, it would be obvious to one of ordinary skill to have a plurality of comparison samples having different chroma levels such as beige, or brown (columns 12-13, lines 62-68, and 1-14, respectively), wherein at least one of the chroma levels is about 22, have a reflectance spectrum and chroma substantially similar to the object to be measured, such as hair, in order to calibrate a colorimeter more accurately, and to get a better measurement of the hair color under different illuminations.

In regards to claims 18 and 68, the matching chart comprises comparison samples having four differing levels of lightness (column 16, lines 14-17). However, MacFarlane states that many more types of skin color can be used, which would include many more types of skin lightness (column 2, lines 63-68). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to at more differing lightness levels to make the comparison samples comprise at least ten differing lightness levels.

In regards to claim 27, the comparison sample comprises a painted paper tile (column 5, lines 50-57), wherein the tile is the support.

In regards to claims 34-35 and 83-84, although MacFarlane does not disclose that the comparison sample used to calibrate the colorimeter comprises an identifier, such as an alphanumeric code, associated with the color of the sample, this is disclosed with other color charts mentioned in the invention (column 17, lines 1-7). Furthermore, it is well known in the art to use an alphanumeric code to identify a color of a sample in a matching chart, and it would therefore be obvious to one of ordinary skill in the art to use an alphanumeric code as an identifier for each comparison sample in this chart, to identify the colors of the chart.

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In regards to claims 48 and 99, the matching chart and system are disclosed above. The plurality of comparison samples forming the at least one set are connected so as to form a fan-like configuration is merely a design consideration, and would be obvious to anyone skilled in the art.

In regards to claim 104, it is very well known in the art to display colors, and color charts as an electronic image on a computer monitor, and it would be obvious to one skilled in the art to do so.

In regards to claim 115, the method of manufacturing a product is disclosed above. Although MacFarlane uses the color chart electronically, it would be obvious to one of ordinary skill to use the tiles as a physical medium for comparing the color of the skin to the color of the tiles to categorize the skin color if a computer was not available.

In regards to claim 116, the system is provided in digital form. Although it is not disclosed it would be obvious to one of ordinary skill in the art to configure the system to be printed using a digital information printing device, so that a user may readily see, and take with to shop, the comparison chart indicating the color of the user's skin.

In regards to claim 119, it would be up to the user to decide which comparison sample to choose.

In regards to claims 123 and 174, while MacFarlane uses a colorimeter to compare the color of the comparison sample to the color of the keratinous element, it would be obvious to one of ordinary skill to place the keratinous element adjacent to at least a portion of the comparison sample to as to permit comparison of the element with the sample, if a colorimeter was not available.

In regards to claims 124-125, 166-167, and 171, although MacFarlane does not disclose that the comparison sample used to calibrate the colorimeter comprises an identifier, such as an alphanumeric code, associated with the color of the sample, this is disclosed with other color charts mentioned in the invention (column 17, lines 1-7). Furthermore, it is well known in the art to use an alphanumeric code to identify a color of a sample in a matching chart, and to use that alphanumeric code to identify a product by matching to the alphanumeric code on the color chart, and it would therefore be obvious to one of

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ordinary skill in the art to use an alphanumeric code as an identifier for each comparison sample in this chart, to identify the colors of the chart.

Claims 28-33, 49-50, 77-82, and 100-101 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacFarlane et al. (USPN 5,311,293) as applied to claims 1, 3-4, 8-12, 15-18, 27, 47, 51-54, 58, 60-62, 65-68, 98, and 102-103 above, in view of Stenz (USPN 1,741,080), as cited by applicant.

In regards to claims 28 and 77, although MacFarlane discloses that the comparison sample comprises a painted paper tile (column 5, lines 50-57), wherein the tile is the support, the structure of the tile is not disclosed. However the structure of the tile is merely a design consideration, and it would be obvious to one of ordinary skill to design the support to accommodate the needs of the user.

For example, Stenz discloses a matching chart comprising a plurality of comparison samples (fig. 3). Each of the comparison samples comprises a rectangular colored paper tile. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use this structure as the structure of the support in MacFarlane's system.

In regards to claims 29 and 78, the matching chart and system are disclosed above. The length and width of the support are merely design considerations, and would be obvious to anyone skilled in the art.

In regards to claims 30 and 79, MacFarlane does not disclose that the comparison sample defines a hole. However, since the tiles used in this system are used to replicate the color of skin, it would be obvious to one of ordinary skill in the art to compare the skin and the tile, and furthermore, have a hole in the tile in order to do this, because it is well known in the art to do so.

For example, Stenz discloses a matching chart comprising a plurality of comparison samples (fig. 3). Each of the comparison samples comprises a rectangular colored paper tile with a hole in the tile so that the color of the tile can be compared with a keratinous element such as skin (page 1, lines 60-87).

In regards to claims 31 and 80, the matching chart and system are disclosed above. The location of the hole is merely a design consideration, and would be obvious to anyone skilled in the art.

In regards to claims 32 and 81, the matching chart and system are disclosed above. The dimension of the hole is merely a design consideration, and would be obvious to anyone skilled in the art.

In regards to claims 33 and 82, the matching chart and system are disclosed above. The hole is circular (fig. 3, 6) and a dimension of it would be a diameter.

In regards to claims 49 and 100, Stenz discloses a support wherein only one comparison sample is on the support (fig. 2), and a support wherein a plurality of comparison samples are on the support (fig. 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the plurality of comparison samples of MacFarlane's on a support, instead of one comparison sample on the support, as an alternate embodiment of the support, and because it is well known to do so.

In regards to claims 50 and 101, the support being in the form of a strip is merely a design consideration, and would be obvious to anyone skilled in the art.

Claims 188-192, and 194-199 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamen et al. (USPN 5,150,791) in view of MacFarlane et al. (USPN 5,311,293), cited by the applicant.

In regards to claim 188, Kamen discloses a method of manufacturing packaging for a product, comprising providing at least one comparison sample on packaging for a product intended for application to a keratinous element (column 2, lines 36-47). Kamen does not disclose that the comparison sample has a reflectance spectrum substantially similar to a reflectance spectrum of a keratinous element, or that it is configured to substantially simulate the color of the keratinous element. However, it would be obvious to one of ordinary skill in the art to have the color of the comparison sample substantially simulate the color of the keratinous element once the product is applied, in order for the buyer to more easily know what the product will look like once applied to the keratinous element.

MacFarlane discloses a comparison sample having a reflectance spectrum substantially similar to a reflectance spectrum of a keratinous element. This is done to avoid a problem known as metamerism, where two objects will have the same perceived color under one light, and a different color under another (columns 5-6, lines 42-68 and 1-17). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the comparison sample of Kamen's system have a reflectance spectrum substantially similar to a reflectance spectrum of a keratinous element, so that the sample and the element would appear to have the same color under at least two different illuminants to avoid metamerism.

In regards to claim 189, providing at least one comparison sample on the packaging comprises affixing the at least one comparison sample to the packaging (fig. 2 and column 3, lines 7-12).

In regards to claim 190, although Kamen does not disclose that the comparison sample is printed on the packaging, it is well known in the art to print the color of the item in the packaging on the packaging, and furthermore, since MacFarlane's comparison samples are painted on paper tiles, the spectral reflectance can still be maintained by this method.

In regards to claim 191, the at least two differing illuminants are chosen from a D65 illuminant, and an A illuminant (MacFarlane column 6, lines 14-17).

In regards to claim 192, the reflectance spectrum of each comparison sample is substantially similar to the reflectance spectrum of the keratinous element in a spectral range from about 400-800 nm (column 6, lines 11-17).

In regards to claim 194, the at least one comparison sample is configured to substantially simulate a color of skin (MacFarlane column 6, lines 3-8).

In regards to claim 195, it would be obvious to one of ordinary skill to have an orange or yellow comparison sample, which would have a hue angle ranging from about 40 degrees to about 70 degrees in the CIEL*C*h 1976 color space, on the package of a product which is orange or yellow.

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In regards to claim 196, there are a plurality of comparison samples substantially simulating differing colors of keratinous elements (Kamen fig. 3), wherein the method further comprises providing each comparison sample on a packaging for a product (Kamen, column 3, lines 8-16).

In regards to claim 197, providing each comparison sample of a packaging comprises providing each comparison sample on respective packaging for differing products (column 2, lines 39-47).

In regards to claim 198, the keratinous element is chosen from skin, fingernails, and toenails (column 2, lines 39-47).

In regards to claim 199, the packaging is for a cosmetic product (column 2, lines 39-47).

Allowable Subject Matter

Claims 138-164 and 200-219 are allowed.

Claims 5-7, 19-22, 25-26, 36-41, 43-46, 55-57, 69-72, 75-76, 85-90, 92-97, 109-113, 128, 136-137, 178, 186-187, and 193 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

As to claims 5, 55, 128, 178, and 193, the prior art of record, taken alone or in combination, fails to disclose or render obvious a matching chart, a system, a method of manufacturing or selecting a product, or a method of manufacturing a package for a product wherein

$$1/N(\lambda) \sum_{\lambda} |I_R^{\text{MOD}}(\lambda) - I_R^{\text{REF}}(\lambda)| / I_R^{\text{REF}}(\lambda)$$

is not greater than 0.1, in combination with the rest of the limitations of claims 5, 55, 128, and 178.

As to claims 19, 69, 136, and 186, the prior art of record, taken alone or in combination, fails to disclose or render obvious a matching chart or system comprising a plurality of comparison samples, wherein a total color difference $\Delta E^*C^*h_{94}$ measured in the CIEL*C*h 1976 color space between two

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comparison samples respectively substantially simulating two adjacent sample colors is substantially constant, in combination with the rest of the limitations of claims 19 and 69.

As to claims 25 and 75, the prior art of record, taken alone or in combination, fails to disclose or render obvious a matching chart or system wherein each comparison sample is configured such that the color of the sample is non-uniform, in combination with the rest of the limitations of claims 25 and 75.

As to claims 36 and 85, the prior art of record, taken alone or in combination, fails to disclose or render obvious a matching chart or system wherein each comparison sample is configured to have a non-uniform brightness, in combination with the rest of the limitations of claims 36 and 85.

As to claims 43 and 92, the prior art of record, taken alone or in combination, fails to disclose or render obvious a matching chart or system wherein at least one appearance characteristic other than color comprises brightness, in combination with the rest of the limitations of claims 43 and 92.

As to claims 45 and 96, the prior art of record, taken alone or in combination, fails to disclose or render obvious a matching chart or system wherein at least one appearance characteristic other than color comprises color non-uniformity, in combination with the rest of the limitations of claims 45 and 96.

As to claims 46 and 97, the prior art of record, taken alone or in combination, fails to disclose or render obvious a matching chart or system wherein each comparison sample comprises a relief pattern, the relief pattern being configured to provide a non-uniform brightness, in combination with the rest of the limitations of claims 46 and 97.

As to claim 109, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of making a comparison sample configured to substantially simulate a color of a keratinous element comprising treating at least one of a support and a coating to imitate the texture of the keratinous element, in combination with the rest of the limitations of claim 109.

As to claim 138, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of monitoring tanning of skin comprising determining whether the color of the skin has

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changed by comparing the skin with a comparison sample of a system, in combination with the rest of the limitations of claim 138.

As to claim 142, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of monitoring treatment of a keratinous element with a product comprising determining whether the color of the keratinous element to which the product has been applied has changed by comparing the keratinous element with a comparison sample of a system, in combination with the rest of the limitations of claim 142.

As to claim 200, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of treating a keratinous element comprising selecting a comparison sample from a system that corresponds to a desired color for the keratinous element, in combination with the rest of the limitations of claim 200.

As to claim 213, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of enabling an analysis of a keratinous element wherein a reflectance spectrum of an image is substantially similar to a reflectance spectrum of the keratinous element such that the image and the keratinous element appear to an observer to have substantially the same color under at least two differing illuminants, in combination with the rest of the limitations of claim 213.

Examiner's Remarks

Claims 138, 142, 200, and 213 have been allowed over the prior art of record. If claim 52 is to be cancelled, the claims will need to be amended to include the limitations of claim 53 in order for their allowability to be maintained, and so they will not be considered incomplete.

Additional Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art made of record is Graham et al. (USPN 5,177,694), Gindele et al. (USPN 6,594,388), and Komatsubara et al. (JPO 09-178561).

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Graham discloses a method and apparatus of computerized color matching for a keratinous element, wherein the element is photographed against a comparison sample, and the color is corrected for problems such as unknown lighting using a reference comparison sample.

Gindele discloses a method of correcting the hue, lightness, and chroma levels of a color image using the Macbeth color chart.

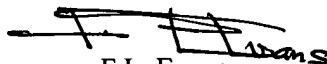
Komatsubara discloses a method and system to predict and calculate a formulation of a color that would match the original color under different illumination lights.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kara E Geisel whose telephone number is 703 305 7182. The examiner can normally be reached on Monday through Friday, 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 703 308 4881. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872 9318 for regular communications and 703 872 9319 for After Final communications. For inquiries of a general nature, the Customer Service fax number is 703 872 9317.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 1782.


F.L. Evans
Primary Examiner
Art Unit 2877

K.G.
KEG
August 19, 2003